

WEST Search History

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DATE: Wednesday, December 24, 2003

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		<i>DB=PGPB,USPT,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L7	5764903[uref]	12
<input type="checkbox"/>	L6	5901228[uref]	10
<input type="checkbox"/>	L5	L4 not l3	52
<input type="checkbox"/>	L4	L1 same (host or server)	59
<input type="checkbox"/>	L3	L1 same internet	25
<input type="checkbox"/>	L2	L1 same differen\$	30
<input type="checkbox"/>	L1	(virtual or emulate) with hard drive	227

END OF SEARCH HISTORY

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L5: Entry 13 of 52

File: PGPB

May 16, 2002

PGPUB-DOCUMENT-NUMBER: 20020059402
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020059402 A1

TITLE: SERVER-SIDED INTERNET-BASED PLATFORM INDEPENDENT OPERATING SYSTEM AND
APPLICATION SUITE

PUBLICATION-DATE: May 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
BELANGER, CHARLES E.	BILLEVICA	MA	US	

APPL-NO: 09/ 134396 [PALM]
DATE FILED: August 14, 1998

CONTINUED PROSECUTION APPLICATION: This is a publication of a continued prosecution application (CPA) filed under 37 CFR 1.53(d).

RELATED-US-APPL-DATA:

Application is a non-provisional-of-provisional application 60/030994, filed November 15, 1996,
Application is a non-provisional-of-provisional application 60/030996, filed November 15, 1996,
Application is a non-provisional-of-provisional application 60/038411, filed February 18, 1997,
Application is a non-provisional-of-provisional application 60/055782, filed August 15, 1997,
Application is a non-provisional-of-provisional application 60/057256, filed August 29, 1997,
Application is a non-provisional-of-provisional application 60/060612, filed October 1, 1997,
Application is a non-provisional-of-provisional application 60/065416, filed November 13, 1997,

INT-CL: [07] G06 F 15/177

US-CL-PUBLISHED: 709/220
US-CL-CURRENT: 709/220

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

The systems and methods described herein provide different types of Web authoring, Web site management, and communication software technology, including but not limited to full multimedia authoring, online libraries, sounds, forms, e-mail,

facsimile, voice-mail, pager, telephone, financial management, true document printing (as opposed to screen printing), text-to-voice and voice-to-text conversion, file management, spreadsheets, all accessed and run via the Internet. The system resides entirely on an Internet Web Server site and interacts with users via conventional programming languages written for a universal protocol. As a result, there is no need for client-side messaging software. All software is provided on the server side. The only software the user needs is any form of communications module and an electronic communications connection. Because the system is platform and operating system independent, a user may author, create, maintain, send and receive messages from any platform, using any conventional operating system. A user may customize their desktop configuration and may run a variety of different applications. Moreover, a user may switch between applications, and transfer text, graphics, or sound files between applications.

First Hit

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L2: Entry 2 of 30

File: PGPB

Jun 12, 2003

PGPUB-DOCUMENT-NUMBER: 20030110188

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030110188 A1

TITLE: Virtual directory file navigation system

PUBLICATION-DATE: June 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Howard, David E.	Loveland	CO	US	
Gandee, John J.	Windsor	CO	US	
Godwin, Kurt E.	Loveland	CO	US	

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
1 Vision Software, Inc.	Loveland	CO	US	02

APPL-NO: 10/ 320890 [PALM]

DATE FILED: December 16, 2002

RELATED-US-APPL-DATA:

Application 10/320890 is a division-of US application 09/603701, filed June 27, 2000, US Patent No. 6496837

Application 10/320890 is a division-of US application 09/635060, filed August 9, 2000, US Patent No. 6519612

Application 09/635060 is a division-of US application 08/979657, filed November 26, 1997, US Patent No. 6185574

Application is a non-provisional-of-provisional application 60/031926, filed November 27, 1996,

INT-CL: [07] G06 F 12/00

US-CL-PUBLISHED: 707/200

US-CL-CURRENT: 707/200

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

The parallel virtual directory system can extend the native file system to provide a superior method for organizing a computer system's physical storage devices or locations. These can include hard disks and removable media or remote storage locations such as on the Internet. Interceptor modules can monitor all file or memory changes such as creations, writes and deletes to the native file system and can pass this information to the parallel virtual directory system. The parallel

virtual directory system may be accessed through the native file system methods allowing users to view their file system as it existed at any point in time, including removable media that is no longer present in the system. Further, via the parallel virtual directory system and the Interceptor modules, users can access any file in any of the monitored file systems. The parallel virtual directory system may be implemented using database technology thereby allowing multiple views of the parallel virtual directory system to be offered to the user based on their needs and can thus be used to ease navigation through the file system. Further, a set of information management processes can run at the application level providing data management services such as backup, archiving, recording of digital video programming, or even controlled playback or utilization of that information. The information management processes can configure the parallel virtual directory system to capture the information they require and use the gathered information to efficiently complete their data management functions.

[0001] This application claims the benefit of pending U.S. application 60/031,926, entitled "Parallel Global Directory and File Navigation System" and filed on Nov. 27, 1996.

First Hit Fwd Refs

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L2: Entry 22 of 30

File: USPT

Sep 23, 1997

US-PAT-NO: 5671439

DOCUMENT-IDENTIFIER: US 5671439 A

TITLE: Multi-drive virtual mass storage device and method of operating same

DATE-ISSUED: September 23, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Klein; Dean A.	Lake City	MN		
Anderson; Eric D.	Hudson	WI		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Micron Electronics, Inc.	Minneapolis	MN			02

APPL-NO: 08/ 370650 [PALM]

DATE FILED: January 10, 1995

INT-CL: [06] G06 F 12/06

US-CL-ISSUED: 395/821; 395/841, 395/405, 395/441

US-CL-CURRENT: 710/1; 710/21, 711/114, 711/5

FIELD-OF-SEARCH: 360/22, 360/23, 360/24, 365/230.04, 369/34, 395/821, 395/841, 395/405, 395/441, 395/454, 395/440, 395/850

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>4222078</u>	September 1980	Bock	360/23
<input type="checkbox"/>	<u>4366510</u>	December 1982	Watanabe et al.	360/22
<input type="checkbox"/>	<u>4393444</u>	July 1983	Weinberg	395/405
<input type="checkbox"/>	<u>4622598</u>	November 1986	Doi et al.	360/22
<input type="checkbox"/>	<u>5047873</u>	September 1991	Ballinger et al.	360/22
<input type="checkbox"/>	<u>5088081</u>	February 1992	Farr	360/24
<input type="checkbox"/>	<u>5148432</u>	September 1992	Gordon et al.	395/182.05

<input type="checkbox"/>	<u>5237466</u>	August 1993	Glaser et al.	360/73.03
<input type="checkbox"/>	<u>5276808</u>	January 1994	Cheney et al.	395/841
<input type="checkbox"/>	<u>5301297</u>	April 1994	Menon et al.	395/441
<input type="checkbox"/>	<u>5355486</u>	October 1994	Cornaby	395/650
<input type="checkbox"/>	<u>5359611</u>	October 1994	Parks et al.	371/40.4
<input type="checkbox"/>	<u>5367410</u>	November 1994	McCarthy	360/22
<input type="checkbox"/>	<u>5388108</u>	February 1995	De Moss et al.	371/51.1
<input type="checkbox"/>	<u>5402428</u>	March 1995	Kauta et al.	395/182.07
<input type="checkbox"/>	<u>5404454</u>	April 1995	Parks	395/841
<input type="checkbox"/>	<u>5440716</u>	August 1995	Schultz et al.	395/441
<input type="checkbox"/>	<u>5446855</u>	August 1995	Dang et al.	395/401
<input type="checkbox"/>	<u>5479611</u>	December 1995	Oyama	395/185.01
<input type="checkbox"/>	<u>5555391</u>	September 1996	De Subijana et al.	395/850

OTHER PUBLICATIONS

Messmer, The Indispensable PC Hardware Book, pp;. 510-605, 777-788 (Addison-Wesley 1993).

ART-UNIT: 235

PRIMARY-EXAMINER: Harvey; Jack B.

ASSISTANT-EXAMINER: Myers; Paul R.

ATTY-AGENT-FIRM: Dorsey & Whitney LLP

ABSTRACT:

A virtual mass storage device implements a data manager for storing information on multiple physical mass storage devices. The virtual mass storage device is organized into blocks of information which are allocated to different physical devices, thereby enabling the physical devices to operate in parallel and increase the overall transfer rate of the virtual device.

38 Claims, 12 Drawing figures

[First Hit](#) [Fwd Refs](#)

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L5: Entry 45 of 52

File: USPT

Feb 6, 2001

US-PAT-NO: 6185580

DOCUMENT-IDENTIFIER: US 6185580 B1

TITLE: Physical information and extensions file and file system translator

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Day, III; Kenneth Fairclough	Tucson	AZ		
Dewey; Douglas William	Tucson	AZ		
Pease; David Allan	Redwood Estates	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
International Business Machines Corporation	Armonk	NY			02	

APPL-NO: 09/ 103697 [\[PALM\]](#)

DATE FILED: June 24, 1998

INT-CL: [07] [G06](#) [F](#) [17/30](#)

US-CL-ISSUED: 707/205; 707/1, 707/4, 707/204, 345/326

US-CL-CURRENT: [707/205](#); [707/1](#), [707/204](#), [707/4](#)

FIELD-OF-SEARCH: 707/204, 707/205, 707/1, 707/4, 345/326

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	4956809	September 1990	George et al.	707/101
<input type="checkbox"/>	5088031	February 1992	Takasaki et al.	395/400
<input type="checkbox"/>	5129088	July 1992	Auslander et al.	395/700
<input type="checkbox"/>	5506692	April 1996	Murata	358/442
<input type="checkbox"/>	5546558	August 1996	Jacobson et al.	395/441
<input type="checkbox"/>	5564051	October 1996	Halliwel et al.	707/200

<input type="checkbox"/> <u>5572711</u>	November 1996	Hirsch et al.	703/26
<input type="checkbox"/> <u>5682507</u>	October 1997	Phillips et al.	395/850
<input type="checkbox"/> <u>5953522</u>	September 1999	Fox et al.	395/681

ART-UNIT: 277

PRIMARY-EXAMINER: Breene; John

ASSISTANT-EXAMINER: Lewis; Cheryl

ATTY-AGENT-FIRM: Altera Law Group, LLC

ABSTRACT:

A file translation system and a physical information and extensions file for an intermediary controller is disclosed. The file translation system that allow a host computer to directly access data from a different host type without moving the actual data. The physical information and extension file provides information concerning the location of data and the file system the host is viewing. The intermediary controller is disposed between a legacy disk controller for an originating host of a first type and an open system host. The intermediary controller emulates a virtual storage device using a virtual device file system, wherein the virtual device file system mapping data stored in a storage device by the originating host to objects in a root directory in the virtual device file system. The physical information and extension file comprising controller information for identifying the intermediary controller and logical device information, as well as any other information needed by an administrator or service technician.

28 Claims, 6 Drawing figures

First Hit Fwd Refs

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L5: Entry 50 of 52

File: USPT

Jun 9, 1998

US-PAT-NO: 5764903

DOCUMENT-IDENTIFIER: US 5764903 A

TITLE: High availability network disk mirroring system

DATE-ISSUED: June 9, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Ying-King	Sunnyvale	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Acer America Corporation	San Jose	CA			02

APPL-NO: 08/ 312869 [PALM]

DATE FILED: September 26, 1994

INT-CL: [06] G06 F 13/00

US-CL-ISSUED: 395/200.38; 395/439, 395/825

US-CL-CURRENT: 709/208; 710/5, 711/112

FIELD-OF-SEARCH: 395/826, 395/200.03, 395/200.05, 395/200.08, 395/182.04, 395/441, 395/825, 395/872, 364/966.5, 364/968, 364/242.84, 364/280, 364/284.4, 364/285.3

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>4244019</u>	January 1981	Anderson et al.	395/200.05
<input type="checkbox"/>	<u>4590554</u>	May 1986	Glazer et al.	395/182.11
<input type="checkbox"/>	<u>4700292</u>	October 1987	Campnaini	395/200.2
<input type="checkbox"/>	<u>4958270</u>	September 1990	McLaughlin et al.	364/187
<input type="checkbox"/>	<u>5051887</u>	September 1991	Berger et al.	395/489
<input type="checkbox"/>	<u>5065354</u>	November 1991	Jons et al.	395/182.03
<input type="checkbox"/>	<u>5086502</u>	February 1992	Malcolm	395/182.06
<input type="checkbox"/>	<u>5088021</u>	February 1992	McLaughlin et al.	364/187

<input type="checkbox"/> <u>5157663</u>	October 1992	Major et al.	395/182.08
<input type="checkbox"/> <u>5206934</u>	April 1993	Naef, III	395/200.04
<input type="checkbox"/> <u>5379374</u>	January 1995	Ishizaki et al.	395/155
<input type="checkbox"/> <u>5390313</u>	February 1995	Yanai et al.	395/425
<input type="checkbox"/> <u>5392244</u>	February 1995	Jacobsen et al.	365/200
<input type="checkbox"/> <u>5398331</u>	March 1995	Huang et al.	395/575
<input type="checkbox"/> <u>5432922</u>	July 1995	Polyzois et al.	395/425
<input type="checkbox"/> <u>5434994</u>	July 1995	Shaheen et al.	395/500
<input type="checkbox"/> <u>5435004</u>	July 1995	Cox et al.	395/575
<input type="checkbox"/> <u>5446855</u>	August 1995	Dang et al.	395/401
<input type="checkbox"/> <u>5452448</u>	September 1995	Sakuraba et al.	395/600
<input type="checkbox"/> <u>5459857</u>	October 1995	Ludlam et al.	395/182.04
<input type="checkbox"/> <u>5479653</u>	December 1995	Jones	395/182.03
<input type="checkbox"/> <u>5488731</u>	January 1996	Mendelsohn	395/800

ART-UNIT: 272

PRIMARY-EXAMINER: Lee; Thomas C.

ASSISTANT-EXAMINER: Chen; Anderson I.

ATTY-AGENT-FIRM: Townsend and Townsend and Crew LLP

ABSTRACT:

The present invention provides methods for mirroring hard disk data of a primary server over a network to a secondary server. A virtual disk driver is provided between the operating system and the hard disk driver of the primary server. After the virtual disk driver receives a disk write request that should be mirrored, the virtual disk driver first sends a disk write request to the secondary server. The virtual disk driver then sends the disk write request to a disk drive on the primary server. In the event data residing on one server is unavailable due to a system failure, the same data would still be available on the other server. Multiple methods of synchronous and asynchronous disk mirroring are provided. The present invention provides a very low overhead and results in high performance and availability.

31 Claims, 9 Drawing figures

First Hit Fwd Refs

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L6: Entry 1 of 10

File: USPT

Jul 15, 2003

US-PAT-NO: 6594677

DOCUMENT-IDENTIFIER: US 6594677 B2

TITLE: Virtual tape storage system and method

DATE-ISSUED: July 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Davis; Ray Charles	Spring	TX		
Blythe; Bobby Ernest	Pearland	TX		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
SimDesk Technologies, Inc.	Houston	TX			02

APPL-NO: 09/ 747457 [PALM]

DATE FILED: December 22, 2000

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/204

US-CL-CURRENT: 707/204

FIELD-OF-SEARCH: 707/102, 707/204, 707/104.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5485608</u>	January 1996	Lomet et al.	707/202
<input type="checkbox"/>	<u>5506661</u>	April 1996	Hanzawa	399/1
<input type="checkbox"/>	<u>5694546</u>	December 1997	Reisman	705/26
<input type="checkbox"/>	<u>5758067</u>	May 1998	Makinen et al.	395/185.07
<input type="checkbox"/>	<u>5765173</u>	June 1998	Cane et al.	707/204
<input type="checkbox"/>	<u>5771354</u>	June 1998	Crawford	395/200.59
<input type="checkbox"/>	<u>5805864</u>	September 1998	Carlson et al.	395/500
<input type="checkbox"/>	<u>5901228</u>	May 1999	Crawford	380/25

<input type="checkbox"/> <u>5966730</u>	October 1999	Zulch	711/162
<input type="checkbox"/> <u>6049874</u>	April 2000	McClain et al.	713/176
<input type="checkbox"/> <u>6065062</u>	May 2000	Periasamy et al.	709/242
<input type="checkbox"/> <u>6070224</u>	May 2000	LeCrone et al.	711/112
<input type="checkbox"/> <u>6094605</u>	July 2000	Blendermann et al.	700/214
<input type="checkbox"/> <u>6125388</u>	September 2000	Reisman	709/218
<input type="checkbox"/> <u>6199071</u>	March 2001	Nielsen	707/204
<input type="checkbox"/> <u>6427149</u>	July 2002	Rodriguez et al.	707/10
<input type="checkbox"/> <u>6510432</u>	January 2003	Doyle	707/10

OTHER PUBLICATIONS

Internet printout, "BackOnline," <http://freeback.com>, Printed Dec. 14, 2000, 5 pages.

Internet printout, "Find Out More," <http://www.storagepoint.com>, Printed Dec. 14, 2000, 3 pages.

Internet printout, INRANGE--Products "Resource Center," <http://www.inrange.com>, Printed Dec. 14, 2000, one page.

ART-UNIT: 2171

PRIMARY-EXAMINER: Metjahic; Safet

ASSISTANT-EXAMINER: Al-hashemi; Sana

ATTY-AGENT-FIRM: Woodard, Emhardt, Moriarty, McNett & Henry LLP

ABSTRACT:

An archiving system allows a user to select files to be archived using a terminal connectable to a remote computer via a long distance telecommunication connection. The files may be selected from any memory accessible to the terminal including locally accessible memory and remotely accessible memory. The files are archived to a user space within a writable stable memory connected to the remote computer and may be restored to their original memory location in response to user commands from the terminal.

30 Claims, 4 Drawing figures

First Hit Fwd Refs

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L7: Entry 1 of 12

File: USPT

Dec 2, 2003

US-PAT-NO: 6658563

DOCUMENT-IDENTIFIER: US 6658563 B1

TITLE: Virtual floppy diskette image within a primary partition in a hard disk drive and method for booting system with virtual diskette

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ice, Jr.; Herbert Jackson	Austin	TX		
Johnson; Robert Duane	Raleigh	NC		
Kekessie; Kofi	Durham	NC		
Rhoades; David	Apex	NC		
Vaiskauckas; Gary Anthony	Morrisville	NC		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
International Business Machines Corporation	Armonk	NY				02

APPL-NO: 09/ 574729 [PALM]

DATE FILED: May 18, 2000

INT-CL: [07] G06 F 15/177, G06 F 1/24

US-CL-ISSUED: 713/2; 713/1, 713/100

US-CL-CURRENT: 713/2; 713/1, 713/100

FIELD-OF-SEARCH: 713/1, 713/2, 713/100, 711/173, 700/5

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5142680</u>	August 1992	Ottman et al.	717/176
<input type="checkbox"/>	<u>5758165</u>	May 1998	Shuff	717/176
<input type="checkbox"/>	<u>5764903</u>	June 1998	Yu	
<input type="checkbox"/>	<u>5787491</u>	July 1998	Merkin et al.	711/173

<input type="checkbox"/>	<u>5887164</u>	March 1999	Gupta	
<input type="checkbox"/>	<u>5930831</u>	July 1999	Marsh et al.	711/173
<input type="checkbox"/>	<u>5964830</u>	October 1999	Durrett	
<input type="checkbox"/>	<u>6192471</u>	February 2001	Pearce et al.	713/2
<input type="checkbox"/>	<u>6199159</u>	March 2001	Fish	713/2
<input type="checkbox"/>	<u>6304965</u>	October 2001	Rickey	713/2
<input type="checkbox"/>	<u>6430663</u>	August 2002	Ding	711/162
<input type="checkbox"/>	<u>6473655</u>	October 2002	Gould et al.	700/5

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
404268626	September 1992	JP	

OTHER PUBLICATIONS

"Dynamic Validation of a Large Virtual Partition Space", IBM Technical Disclosure Bulletin, Dec. 1973, vol. No. 16, pp. 2104-2105.*
"Enhancing Applications Performance on Intel Paragon through Dynamic Memory Allocation", IEEE, 1994, pp. 232-239.

ART-UNIT: 2185

PRIMARY-EXAMINER: Heckler; Thomas M.

ASSISTANT-EXAMINER: Cao; Chun

ATTY-AGENT-FIRM: Bracewell & Patterson LLP

ABSTRACT:

A data processing system and method are described for booting a computer system from a virtual floppy diskette. A native operating system is executed by the computer system which utilizes a native file system. A boot able floppy diskette image is stored on the hard drive. The image includes a second operating system which utilizes a second file system. A master boot record stored on the hard drive is modified to include a boot bit. The boot bit is set in response to a storage of the image. The computer system is then booted from the image in response to the boot bit being set. The native operating system and the native file system are unchanged during the booting of the computer system from the image.

21 Claims, 5 Drawing figures

First Hit Fwd Refs

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L5: Entry 39 of 52

File: USPT

Jun 25, 2002

US-PAT-NO: 6411943

DOCUMENT-IDENTIFIER: US 6411943 B1

TITLE: Internet online backup system provides remote storage for customers using IDs and passwords which were interactively established when signing up for backup services

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crawford; Christopher M.	Washington	DC	20016	

APPL-NO: 09/ 644546 [PALM]

DATE FILED: August 24, 2000

PARENT-CASE:

This is a continuing application of application Ser. No. 09/417,896, filed Oct. 14, 1999, now U.S. Pat. No. 6,327,579, which is a divisional application of application Ser. No. 09/159,492, filed Sep. 23, 1998, now U.S. Pat. No. 6,014,651; which is a divisional of application Ser. No. 08/813,612 filed Mar. 10, 1997, now U.S. Pat. No. 5,901,228; which is a divisional of application Ser. No. 08/145,825 filed Nov. 4, 1993, now U.S. Pat. No. 5,771,354, the entire contents of which are hereby incorporated by reference in this application.

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/400; 705/30, 705/34

US-CL-CURRENT: 705/400; 705/30, 705/34

FIELD-OF-SEARCH: 379/90.01, 379/93.01, 379/93.02, 379/111, 379/114, 705/30, 705/34, 705/400, 709/209, 709/217, 709/218, 709/219

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>3718906</u>	February 1973	Lightner	379/77
<input type="checkbox"/>	<u>3917934</u>	November 1975	Goto	705/418
<input type="checkbox"/>	<u>3934079</u>	January 1976	Barnhart	725/131
<input type="checkbox"/>	<u>4278837</u>	July 1981	Best	178/22.09

<input type="checkbox"/>	<u>4319079</u>	March 1982	Best	178/22.09
<input type="checkbox"/>	<u>4465901</u>	August 1984	Best	178/22.09
<input type="checkbox"/>	<u>4528643</u>	July 1985	Freeny, Jr.	364/900
<input type="checkbox"/>	<u>4649479</u>	March 1987	Advani et al.	395/681
<input type="checkbox"/>	<u>4675828</u>	June 1987	Winston	364/528.21
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<input type="checkbox"/>	<u>5594663</u>	January 1997	Messaros et al.	702/184
<input type="checkbox"/>	<u>5606719</u>	February 1997	Nichols et al.	395/876
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<input type="checkbox"/>	<u>5664186</u>	September 1997	Bennett et al.	395/620
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	<u>5771354</u>	June 1998	Crawford	709/229



<input type="checkbox"/> <u>5799285</u>	August 1998	Klingman	705/26
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<input type="checkbox"/> <u>5949415</u>	September 1999	Lin et al.	345/335
<input type="checkbox"/> <u>6014651</u>	January 2000	Crawford	705/400

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
8-205119	August 1996	JP	

OTHER PUBLICATIONS

Valauskas: "Access to Information: Two Catalysts for Change"; Online, Mar. 1992, v16, n2. pp. 96-98.*

:New Compaq ENSA Storage Solutions Enable NonStop eBusiness. (Enterprise Network Storage Architecture; Smart Array 4200 controller and Storage Works Raid Array 4000) (Product Announcement); Edge: Work-Group Computing Report, Jul. 26, 1996.*

"Peregrine System.RTM. Takes Employee Self Service to the Next Level with e-Service for PC Support"; PR Newswire, Oct. 24, 2000.*

Symantec, The Norton Backup, Version 3 for Windows, "User's Guide" (1993).

Symantec, The Norton pcAnywhere for Windows, Version 1.0, "Using Norton pcAnywhere for Windows" (1993).

Future Soft Engineering, Inc., DynaComm, Dynamic Communications, Asynchronous Edition, "Users Guide," Edition IV, (1989).

Traveling Software, Inc., LapLink Pro, "User's Guide " (1991).

IntelliLink Corp., IntelliLink for Windows, "User's Guide," Version 3.0 (1993).

Palindrome Corporation, Network Archivist, Version 2.0, "Operator's Guide," "Network Archivist Handbook," "Hardware Installation Guide," (1991).

Palindrome Corporation, Ntework Archivist, Version 2.0f, "Documentation Update" (1992).

Affidavit of Russ Ranshaw, Interactive Gift Express, Inc. v. Compuserve, Incorporated, et al. (Feb. 20, 1997).

CNET News.com, "E-Data royalty claims challenged," Jul. 19, 1996.

Bowen, Charles and Peyton, David, "How To Get The Most Out Of Compuserve," Second Edition, Bantam Computer Books (Feb. 1996).

"The Online Backup Index," updated Jun. 15, 1998, An Index of Online Backup Software . . . vices and Online Back Technology) and associated documents.

Little: "Feasibility of a Remote Backup Service," 1992; "University of Colorado" (181 pages).

Cosgrove: "The RBS Book Lite!"; Mar. 1, 1995; Precision Data Corporation, "Fewer Calories Than Our Other Fine Book" (34 pages).

Cheng: "The Analysis of Computer Backup Service: Economics, Optimal Capacity, and Resource Allocation", 1992 (Abstract) (The University of Rochester).

Chin: "Networks of Queues with State-Dependent Flows," 1987 (Abstract) (Georgia Institute of Technology).

Pirkul: "The Siting of Emergency Service Facilities with Workload Capacities and Backup Service," 1986) (Listing) (1 page) (College of Administrative Science, Ohio State University).

Pirkul: "The Capacitated Maximal Covering Location Problem with Backup Service," 1987 (Listing) (1 page) (College of Business, Ohio State University).

McConnell: "Put it in a Data Vault," Data Management, vol. 17 No. 7, pp. 22-24 Jul. 1979 (Abstract).

Anonymous: "Data Vaults Secure Tapes at Public Archives," Canadian Datasystems, vol. 14n10; p. 83, Oct. 1982 (abstract).

"Dealing with the dark side: disasters and crime," Drug Topics, v. 127, p. 36, May 2, 1983 (5 pages).

"Data Storage Companies Riding Crest of the Computer Wave," Boston Globe, Jul. 12, 1983 (2 pages).

Schrage: "Personal Computers Networks: Computers Most Useful When They Chat," The Washington Post, Dec. 5, 1983 (4 pages).

"New Firms Help Avert Computer Disaster Threat of Business Loss Creates Fast-Growing Field of Data Recovery," Boston Globe, Mar. 12, 1984 (2 pages).

Knox: "Insuring That A Computer Problem Won't Be Costly," Philadelphia Inquirer, Jul. 23, 1984 (3 pages).

Coy: "Nervous Firms Burying Backup Data in Vaults Thousands of Reels of Magnetic Tape Stored as Precaution Against Computer Failure," The Washington Post, Jan. 26, 1986 (4 pages).

Pyramid Technology: New WorkCenter Provides Workstation Data/Center Networking, Feb. 6, 1986 (3 pages).

"Competition Grows In Off-Site Data Storage Business," San Jose Mercury News, Jan. 15, 1987 (4 pages).

Electronic Vaulting Aims At Reducing `Loss-Exposure Window` For Banks, Corporate EFT Report, vol. 8, n15, Jul. 20, 1988 (two pages).

Moran: "An Electronic Vault in Time," Computer Decisions, vol. 20, n8, p. 30 (Aug. 1988) (4 pages).

"Fast Track Announces the World's First and Only Electronic Vaulting System," Sep. 28, 1988, (3 pages).

"CNT Announces Networking Gateway For IBM Tape Subsystems," News Release, Nov. 1, 1988 (2 pages).

Reitman: "Sungard and IBM Talking About Working Together," Philadelphia Inquirer, Dec. 3, 1988 (2 pages).

Keough: "Electronic Vaulting for Micros, LANs," Computer Decision, vol. 20, n12, p. 77, Dec. 1988 (3 pages).

"Northern Telecom: Northern Telecom Announces Alliance with Novell Inc. to Jointly Develop LAN Operating System Software," Feb. 27, 1989 (3 pages).

Jaben: "Disaster Planning--Electronic Vaulting: Recordkeeping Kept Safe," Banders Monthly, v 106, n7, pp. 37-37, Jul. 1989 (abstract).

Rosenberger: "Computer Virus Myths," 6 pages (1988).

"Secure Data Network Inc. Introduces Nation's First Online PC Data Backup and Retrieval Service," Oct. 31, 1989 (3 pages).

"Comdisco Disaster Recovery Services Introduces CDRS Net," Nov. 10, 1989 (3 pages).

"Integrity Solutions Announces Real-Time Electronic Vaulting," News Release, Dec. 1989 (2 pages).

Kenley: "You Might Never Run Out of Disk Space Again," R&D, vol. 32, n2, p. 110, Feb. 1990 (4 pages).

Kamal: The Hybrid Approach: Mixing Satellite With Land-Based Solutions, Communications News, vol. 27, n3, p. 47, Mar. 1990 (4 pages).

Rothstein: Disaster Recovery in the New Decade: Retrofit Answers Will Not Make it in the 90s, Communications News, vol. 27, n4, p. 34, Apr. 1990 (4 pages).

Kramer: "Central Software Performs Local Backup," PC Week, vol. 7, n24, p. 105 (Jun. 18, 1990) (6 pages).

"ARCUS Opens New Facility," Jul. 20, 1990 (2 pages).

Squibb Datasafe Systems Offers Online Backup of Data, Worldwide Databases, vol. 2, n11, Nov. 1990 (2 pages).

Majorian: "Enhanced network backup in Retrospect Remote," MacWEEK, vol. 4, n 42, p. 82, Dec. 18, 1990 (3 pages).

Bozman: "Escon an Aid to Remote Disks," Computerworld, vol. 25, n1, p. 29, Jan. 7,

1991 (3 pages).
Boatner: "Finding Electronic vaults and network wonders," PC Magazine, vol. 10, n2, p. 280, Jan. 29, 1991 (3 pages).
"System Industries post second quarter earnings," Feb. 21, 1991 (3 pages).
Norr: "Care package takes worry out of backups," MacWEEK, vol. 5, n8, p. 12, Feb. 26, 1991 (2 pages).
Noakes: "All business require solid disaster plan," Financial Post, p. 13, Mar. 9, 1991 (3 pages).
Mills: "Linking design and manufacturing," Computer-Aided Engineering, vol. 10, n3, p. 42, Mar. 1991 (8 pages).
Editorial; Computer Audit Update, Mar. 1991 (3 pages).
Dolce; "The changing landscape of wide are networking," Telecommunications, vol. 25, n4, p. 44, Apr. 1991 (6 pages).
"Secure Data Network signs \$30 million agreement with PacTel Meridian Systems," May 13, 1991 (3 pages).
"Minigrams," Computergram International, n1682, May 23, 1991 (6 pages).
Ferrill: "PC-NFS," PC Magazine, vol. 10, n10, p. 328, May 28, 1991 (3 pages).
White: "Trio of companies agree to clone clients' data and preserve it in 'electronic vaults,'" Los Angeles Business Journal, vol. 13, n22, p. 14, Jun. 3, 1991 (2 pages).
Ratcliffe: "SDN offers clean, well-lighted place for data storage," MacWEEK, vol. 5, n23, p. 27, Jun. 18, 1991 (2 pages).
"Los Alamos grants software license to Santa Fe firm," Jun. 20, 1991 (3 pages).
"Dantz to unveil new remote backup package," MacWEEK, vol. 5, n25, p. 11, Jul. 16, 1991, (2 pages).
Murphy: "Taking the disaster out of recovery," Security Management, vol. 35, n8, p60, Aug. 1991 (9 pages).
Lindstrom: "UDS Motorola wins major ISDN CPE order," Telephony, vol. 221, n10, p. 17, Sep. 2, 1991 (3 pages).
Lau: "Don't underestimate value of magnetic media," Computer Canada, vol. 17, n23, p. 47, Nov. 7, 1991 (3 pages).
Engel: "Looking out for No. 1," Business Journal Serving Charlotte and the Metropolitan Area, vol. 6, n30, p. 15, Nov. 11, 1991 (4 pages).
Snell: "New ways to distribute mainframe storage," Datamation, vol. 37, n24, p67, Dec. 1, 1991 (4 pages).
Rudnick: "question of Recognition Heads List of Barriers to Foreign Investment," Euromoney Slovenia Supplement, pp. 47, Dec. 1991 (3 pages).
CompuServe File Search: re "remote backup," "Twin Express 1.1a Serial File Transfer Program," PC Communications, Jan. 12, 1992 (abstract) (1 page).
Andrews: "Phone Call Makes Backup Duty Easier Than Ever," Seattle Times, Apr. 14, 1992 (3 pages).
Titch: "Changing times in the data market," Telephony, vol. 222, n16, p. S1, Apr. 20, 1992 (7 pages).
Slater: "Disaster planning for the 21.sup.st century," Bankers Monthly, vol. 109, n4, p. 19, Apr. 1992 (4 pages).
Cordy: "Security culture," Computer Weekly, May 7, 1992 (4 pages).
Flores: "High Technology Computer Culprits Have Given Rise to a New Filed 'The Good Guys,'" Seattle Times, Jul. 12, 1992 (4 pages).
McHenry: "TRW Ties Data from Macs, Workstations, PCs Together," Lan Times, Sep. 14, 1992, p. 77, vol. 9, issue 17 (4 pages).
Seltzer: "Notes form the lab," PC Week, vol. 9, n39, p. 91, Sep. 28, 1992 (5 pages).
Vacca: "Masters of Disasters," Network World, vol. 9, n40, pp. 37-46, Oct. 5, 1992 (10 pages).
Schneier: "Taking backups out of users' hands," MacWEEK, vol. 6, n37, p. 32, Oct. 19, 1992 (5 pages).
"Online backup for Vines," LAN Computing, vol. 3, n10, p. 55, Oct., 1992 (2 pages).

Schroeder: "Tecmar to announce storage, backup units," PC Week, vol. 9, n46, p. 8, Nov. 16, 1992.

Xu et al: "Parallel data vault methods for larger scale stochastic dynamic programming," Jun. 24, 1992; Proceedings of the 1992 American Control Conference (two pages).

Phillips: "Electronic vaulting and records centers," Records Management quarterly, vol. 27, n1, pp:38-41+, Jan. 1993 (7 pages).

"Remote backup storage," Computer Fraud & Security Bulletin, Mar. 1993 (abstract).

"Rimage Corporation Purchases P.C. Back-up Technology, Anticipates Improved First Quarter Earnings," PR Newswire, Apr. 16, 1993 (2 pages).

"Merc Exchanges Work on Joint System," Commercial Appeal (Memphis), May 18, 1993.

Fucini: "Ready for anything," U.S. Distribution Journal, vol. 220, n6, p. 22, Jun. 15, 1993 (8 pages).

Dudman: "Getting your back up," PC User, n 213, p. S18, Jun. 16, 1993 (7 pages).

Kindel: "After the fall: hurricanes, floods and even bombings are forcing computer-dependent businesses to rethink their disaster recovery plans," Financial World, vol. 162, n. 13, p. 74, Jun. 22, 1993 (4 pages).

Creswell: "Creswell on Communications-Tips & Trends 10/93"; Sep. 25, 1993 (3 pages).

Peterson: "Network backup evolves," PC Magazine, vol. 12, n. 16, p. 277, Sep. 28, 1993 (14 pages).

Excerpts from IBM New Users Forum, Nov. 1993 (3 pages).

Bittner: "Description of Remote Backup Service as Business," Jan. 2, 1994 (11 pages).

Steinberg, Jeffrey A., "Diverting Data from Disaster (Advanced Systems, Concepts Inc.'s Remote Shadow Option Disk Shadowing Software)," Software Review (Evaluation), Abstract.

S. Armbrust et al., PC Tech Journal, vol. 3, No. 9, "Forward Looking VDI," Sep. 1985, pp. 42-53.

E.R. Carpenter, IBM Technical Disclosure Bulletin, vol. 34, No. 10B, "single System Imagewith Network File Systems," IBM Corp., Mar. 1992, pp. 408-409.

M. Tabes, Datamation, "Managing Storage Across the Enterprise," May 1992, pp. 36-40.

P. Korzeniowski, Software Magazine, "Back to the Mainframe for Storage of LAN Data," Jul. 1992, pp. 73-77.

Mark Ludwig, The Little Black Book of Computer Viruses, American Eagle publications, 1991, pp. 11-19, 23-29, 55-68, 69-76, 159-162.

R. Waterman, Software Magazine, "Waiting for X500," Jul. 1992, 2 pages.

R. Brown, Systems 3X/400, "Serving Many Masters," Mar. 1992, pp. 68-70.

PC Computing, "Test and Evaluation Methods," Jun. 1992, pp. 238, 240, 247-248 and 262.

Price list, "Tape Backup," 1 page.

Advertisement, "Let's Talk.RTM., Tired of the Runaround?," 1 page.

Advertisement, "PC/TCP.RTM. Plus," 1 page.

Advertisement, News 3X/400, "Mimix Hi-Net, Lakeview Technology Inc.," Sep. 1991, p. 140.

Advertisement, Network Innovation, "Server Based Backup," 1 page.

Advertisement, News 3X/400, "PC File Mail," Nov. 1991, p. 74.

Advertisement, "HandsOn Software, Monarch 36/400 lets PC users get their hands on mid-range data," 1 page.

Advertisement, Andrew, "NetLynx: LAN Connectivity by the Numbers," 1 page.

Advertisement, "Innovation.RTM. Data Processing, FDR. Your DASD Management System," 1 page.

Advertisement, "Maynard.RTM., Maynard Delivers a Super Bundle," 1 page.

Advertisement, "Central Point Software Inc..RTM., Never Underestimate the Importance of Complete Protection," 1 page.

Advertisement, Business Communications, Gazelle, "Backup While You Work," Jun. 1992 p. 436.

Advertisement, "Works," 1 page.

Advertisement, Intel.RTM., Introducing fax software that can send, receive and run with your faxes, 1 page.

Advertisement, "LapLink, With LapLink you're only a phone call away," 1 page.

M. Tischer, PC Systems, Programming, Abacus, Apr. 1993, pp. 157-171, 208-212, Appendix B and C.
Advertisement, PC/Computing, "SequeLink , MiddleWare : Open Windows for Client/Server Computing," p. 427.
Advertisement, System Software Associates, Inc., BPCS Client/Server Application Software, 1 page.
Advertisement, "Rochester Software Connection, Inc., What's fast fun and does the AS/400?" 1 page.
Robert Jourdan, Programers Problem Solver, Prentice Hall, 1986, pp. 369-394, 395-406.
The Waite Group, MS-DOS Developers Guide, Howard Sams & Co., 1989, pp. 281-354, 583, 739-748.
Advertisement, PC/Computing, Control up to 96 PC file servers with 1 keyboard and monitor using . . . Commander by cybex, p. 433.
G. Campbell & J. Heim, PC World, "The Best of Online Services," Oct. 1993, pp. 225-240.
C. Shipley, Personal Computing, Ziff-Savis, "The World at Your Fingertips," Fall 1993, pp. 52-56.
J. Burges, Washington Post Business Magazine Monday Section, WashTech, Cybertalk, "Avoiding Highway Robbert," Nov. 1993, pp. 19, 26.
K. Neely, Midrange Computing, "Terminal Emulator or Network: A Management Guide," Sep. 1993, pp. 56-60.
P. Borsook InfoWorld, "Enterprise Computing, Internetworking," Feb. 1, 1993, pp. 48-49.
F. Derfler & S. Rigney, PC Manazine, vol. 10, No. 15, "From LAN to WAN, Bringing Your Networks Together," Sep. 10, 1991, pp. 106-118.
F. Derfler & S. Rigney, PC Magazine, vol. 10, No. 15, "Bridges and Routers, Smart Links Between LAN Segments," Sep. 10, 1991, p. 121-169.
M. Thompson & S. Rigney, PC Magazine, vol. 10, No. 15, "Access Servers, Dialing Up the LAN," Sep. 10, 1991, pp. 177-277.
J. Salemi, PC Magazine, vol. 10, No. 15, "Bulletin Board Software, Tools for Wide-Area Communications," Sep. 10, 1991, pp. 231-300.
M. Stone, PC Magazine, vol. 10, No. 15, "E-Mail LAN Links, Gateways to the World," Sep. 10, 1991, pp. 303-345.
F. Derfler & K. Maxwell, PC Magazine, vol. 10, No. 15, "Linking LANS the Media Move the Message," Sep. 10, 1991, pp. 351-374.
F. Derfler & K. Maxwell, PC Magazine, vol. 10, No. 15, "Public Data Networks, Reliable Relays," Sep. 10, 1991, pp. 177-227.
P. Stephenson, LAN Magazine, "Chip Awat at Viruses," Oct. 1992, pp. 95-102.
PC Computing, "Mobile Computing, No-Hassle Solutions for Keeping Files in Sync," Jul. 1993, pp. 218-219.
Advertisement, MicroCom (R), "Carbon Copy, #1 in Remote Control," 1 page.
Advertisement, Symantec, "The Norton pc Anywhere TM, Controlling Your Desktop PC from a Portable Used to Require a Little Training," 1 page.
Microsoft Croporation, Microsoft MS-DOS(R) 6 Users Guide, Chapter 7 "Features for Your Laptop Computer, Using Interlink to Connect Two Computers," Copyright 1993, pp. 161-166.
Symantec Crop., The Norton pc Anywhre Users Guide, Copyright 1990, 1991.
IBM Corporation, Application System/400.TM., System Introduction, GC1-9766-1, Copyright 1988, 1989.
IBM Corporation, Application System/400.TM., Programming : System Reference Summary, SC21-8104-1, Copyright 1988, 1989.
IBM Corporation, Application System/400.TM., Programming : Control Language Reference vol. 1, SC21-9775-1, Copyright 1988, 1989.
IBM Corporation, Application System/400.TM., Programming : Control Language Programmer's Guide, SC21-8077-1, Copyright 1988, 1989.
IBM Corporation, Application System/400.TM., Programming: Database Guide, SC21-9659-1, Copyright 1988, 1989.
IBM Corporation, Application System/400.TM., Programming: Data Management Guide, SC21-9658-1, Copyright 1988, 1989.

IBM Corporation, Application System/400.TM., Programming: Work Management Guide, SC21-8078-1, Copyright 1988, 1989.

IBM Corporation, Application System/400.TM., PC Support: DOS Planning and Installation Guide, SC21-8195-0, Copyright 1990.

IBM Corporation, Application System/400.TM., PC Support: DOS Operations Reference, SC21-8195-01 Copyright 1990.

IBM Corporation, Application System/400.TM., PC Support: DOS Users Guide, SC21-8199-0, Copyright 1990.

IBM Corporation, Application System/400.TM., PC Support: DOS and Os/2 Technical Reference, SC21-8091-2, Copyright 1988, 1990.

IBM Corporation, Application System/400.TM., PC Support: DOS and Os/2 Messages and Problem Analysis Guide, SC21-8093-2, Copyright 1988, 1990.

Bershad, "Watchdogs: Extending the UNIX File System," Feb. 12, 1988, pp. 267-275.

Needham, "Using Encryption for Authentication in Large Networks of Computers," 12/78, pp. 993-999.

To, C.K. et al., "Knowledge Engineering Approach to Data Centres Disaster Backup/Recovery Planning," Dept. of Computing Studies Hong Kong Polytechnic, Kowloon, Hong Kong, pp. 241-248, 1989 IEEE.*

Arneson, David A., "Mass Storage Archiving in Network Environments," Control Data Corporation, Arden Hills, Minnesota, pp. 45-50 (1988 IEEE).*

Ford, Ric, et al., "Juggling Features and Options in Retrospect," MacWeek, V5, N10, p. 52 (Mar. 12, 1991).

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ABSTRACT:

A user can use his personal computer to call up an on-line service system over a telecommunications link such as a telephone line. The On-line system provides all sorts of useful services to the personal computer such as antiviral protection, auxiliary processing capabilities, and other features that are impractical or inconvenient to provide locally.

49 Claims, 68 Drawing figures